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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,353	02/20/2002	Tommi Koistinen	4925-195PUS	8639

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EXAMINER

JUNTIMA, NITTAYA

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/030,353	KOISTINEN, TOMMI	
	Examiner	Art Unit	
	Nittaya Juntima	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-15 and 20-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-15, 21, 23 and 25 is/are allowed.
- 6) ☒ Claim(s) 20, 22, 24 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 9/22/06.
2. Claims 1 and 16-19 were cancelled.
3. Claims 2-15, 21, 23, and 25 are allowed.
4. The indicated allowability of claims 20, 22, 24, and 26 is withdrawn in view of different interpretation of the previously applied reference(s). Accordingly, claims 24 and 26 are presently rejected under 35 U.S.C. 102(e), and claims 20 and 22 are presently rejected under 35 U.S.C. 103(a).

Claim Objections

5. Claims 20 and 26 are objected to because of the following informalities:

- in claim 20, line 10, a comma should be added after “data frames;”
- in claim 26, line 3, the” should be changed to “a.”

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 24 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Haeggstrom (USPN 6,167,040).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding claim 24, as shown in Fig. 4, Haeggstrom teaches a gateway (IP/PSTN 41) comprising:

Input block for receiving uplink tandem free operation data frames (TFO frames, col. 2, lines 19-37) transmitted from the cellular network (BTS, BSC, MSC/VLR, collectively) towards the packet network (Internet), said frames carrying coded data and, in a frame structure, inband tandem free operation signaling information related to the coding (coded data and inband signaling read on speech parameters carried by one or two less significant bits of the PCM samples, col. 2, lines 32-37, 46-50). See col. 6, lines 19-23.

Extraction block for extracting at least all non-redundant information, which comprises said inband tandem free operation signaling information, from the received uplink tandem free operation data frames (speech parameters of TFO frames discharged and located in the UDP/IP frame must comprise inband TFO signaling information, col. 6, lines 19-23).

Output block for transmitting the non-redundant information extracted from the uplink tandem free operation data frames by utilizing a RTP (the TFO/TRAU frame, which includes the

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inband TFO signaling information, may be transmitted using the RTP in order to make sure that the frames will arrive in the correct order (col. 2, lines 32-37, 46-50, col. 5, lines 40-50, and col. 6, lines 19-23).

Regarding claim 26, as shown in Fig. 4, Haeggstrom teaches a gateway (IP/PSTN 41) comprising:

Input block for receiving, in packet format, non-redundant information extracted from uplink tandem free operation frames transmitted from a cellular network (BTS, BSC, MSC/VLR, collectively) towards a packet network (Internet), said frames carrying coded data and, in a frame structure, in-band tandem free operation signaling information related to the coding (coded data and inband signaling read on speech parameters carried by one or two less significant bits of the PCM samples, col. 2, lines 32-37, 46-50) (speech frames, which carries coded data and inband signaling, from the UDP/IP packets in the direction from the TE towards the mobile station are received at an inherent input block of the gateway 41, col. 6, lines 26-31)

Recognition block for interpreting the received information (since the received speech frames are extracted and packed as TFO frames, col. 6, lines 26-31, the gateway must include a recognition block for interpreting the received information as speech frames).

Frame construction block for constructing, on an edge of the packet network from the non-redundant information, downlink tandem free operation frames (TFO frames), which carry the coded data and, as inband signaling in the frame structure, the tandem free operation signaling information (since the gateway 41 packs the received speech frames as TFO frames, col. 6, lines 26-31, the gateway must include a frame construction block).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haeggstrom (USPN 6,167,040) in view of Suvanen (US 2002/0049052 A1).

Regarding claim 20, as shown in Fig. 4, Haeggstrom teaches a method for transmitting data over packet network, the method comprising:

Connecting cellular network (BTS, BSC, MSC/VLR, collectively) to a packet network (Internet). See Fig. 4.

Transmitting uplink tandem free operation data frames (TFO frames, col. 2, lines 19-37 and col. 6, lines 19-23), which carry coded data and, in a frame structure, inband tandem free operation signaling information related to the coding (coded data and inband signaling read on speech parameters carried by one or two less significant bits of the PCM samples, col. 2, lines 32-37, 46-50), from the cellular network towards the packet network.

Wherein at least all non-redundant information, which comprises said inband tandem free operation signaling information from the uplink tandem free operation data frames, is extracted from said frames to the packet network and transmitted over the packet network (speech parameters of TFO frames extracted and transmitted in UDP/IP frame must comprise inband TFO signaling information, col. 6, lines 19-23).

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Although Haeggstrom further teaches that the TFO/TRAU frame, which includes the non-redundant information (inband TFO signaling information, col. 2, lines 32-37, 46-50), may be transmitted using the RTP in order to make sure that the frames will arrive in the correct order (col. 5, lines 40-50), Haeggstrom does not explicitly teach RTCP that supports real time applications is used.

As shown in Fig. 1, Suvanen teaches using RTCP instead of RTP in the communications between the gateway in which TFO is supported and the packet network such as the Internet (paragraphs 0043, 0046, and 0048).

Given the teaching of Suvanen, it would have been obvious to one skilled in the art at the time of the invention to modify the teaching of Haeggstrom to include RTPCP such that the non-redundant information from the uplink tandem free operation data frames would be transmitting using a RTPCP that supports real time applications as recited in the claim. The suggestion/motivation to do so would have been to utilize RTCP as an alternative transmission protocol as suggested by Suvanen (paragraph 0043).

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haeggstrom (USPN 6,167,040).

Regarding claim 22, as shown in Fig. 4, Haeggstrom teaches a method for transmitting data over packet network, the method comprising:

Connecting cellular network (BTS, BSC, MSC/VLR, collectively) to a packet network (Internet). See Fig. 4.

Transmitting uplink tandem free operation data frames (TFO frames), which carry coded data and, in a frame structure, inband tandem free operation signaling information related to the

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coding (coded data and inband signaling read on speech parameters carried by one or two less significant bits of the PCM samples, col. 2, lines 32-37, 46-50), from the cellular network towards the packet network (col. 2, lines 19-37, and col. 6, lines 8-15 and 19-23).

Wherein at least all non-redundant information, which comprises said inband tandem free operation signaling information from the uplink tandem free operation data frames, is extracted from said frames to the packet network and transmitted over the packet network, the information transmitted over the packet network is processed on an edge of the packet network (speech parameters of TFO frames extracted and transmitted in UDP/IP frame by gateway 41 must comprise inband TFO signaling information, col. 6, lines 19-23).

Haeggstrom does not explicitly teach downlink tandem free operation frames, which carry said coded data and, as inband signalling in the frame structure, said tandem free operation signaling information, are constructed on the edge of the packet network from the non-redundant information transmitted over the packet network.

However, Haeggstrom teaches that in a direction from a TE towards a mobile station, the speech frames, which carries coded data and inband signaling, from the UDP/IP packets from the TE are received, extracted, and packed as TFO frames (downlink tandem free operation frames) at an edge of the Internet (the packet network) by a gateway 41 (col. 6, lines 26-31, 33-35, see also col. 2, lines 32-37, 46-50).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the teaching of Haeggstrom to include downlink tandem free operation frames, which carry said coded data and, as inband signalling in the frame structure, said tandem free operation signaling information, that are constructed on the edge of the packet

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network from the non-redundant information transmitted over the packet network. The suggestion/motivation to do so would have been to enable the downlink tandem free operation frames to be constructed at the other of the packet network and transmitted to another mobile station instead of the TE in order to support VoIP communications between two mobile stations for cost-saving purposes.

Conclusion


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nittaya Juntima
December 4, 2006

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